SEVERN TRENT SERVICES

STL St. Louis

CASE NARRATIVE

Bechtel Hanford Incorporated
3350 George Washington Way
Richland, Washington 99352

July 6, 2000

Attention: Joan Kessner

Project Number	:	33548
SAF	:	B99-018
SDG	:	W03161
Number of Samples	:	one (1)
Sample Matrix	:	Water
Data Deliverable	:	Summary
Date SDG Closed	:	May 31, 2000

II. Introduction

On May 31, 2000, one (1) "water" sample was received by Quanterra, Richland and transferred to Quanterra, St. Louis for chemical analysis. The samples were received within temperature criteria. See the attached Sample Summary sheet for the client and lab Ids for these samples.

III. Analytical Results/ Methodology

The analytical results for this report are presented by analytical test. Each set of data includes sample identification information, analytical results and the appropriate detection limits.

Analyses requested:
pH – 150.1
Sulfate – 375.4
Chlorine (Total Residual) – 330.3
VOA – 8260A (TCL)

Deviation from Request: There were no deviations.

SEVERN TRENT SERVICES

STL St. Louis

Bechtel Hanford Incorporated
July 6, 2000
Project Number: 33548
SDG: W03161
Page 2

IV. Definitions

The following codes are used to denote laboratory quality control samples and can be found in the data summary section of this report:

QCBLK- Quality Control Blank, Method Blank
QCLCS- Quality Control Laboratory Control Sample, Blank Spike
MS- Matrix Spike.
DUP- Matrix Duplicate
MSD- Matrix Spike Duplicate.

V. Comments

General: The term "Detection Limit" used in the analytical data reports refers to either the lab's standard reporting limits or contractually required reporting limits, whichever is applicable.

Please refer to the attached cross-reference table for the standard preparation methods used at Quanterra, St. Louis.

VOA: A Laboratory Control Sample, Method Blank, Matrix Spike and Matrix Spike Duplicate were analyzed with each preparation batch per the protocol for this analysis. There were no comments or non-conformances associated with the Volatile data.

Wet Chemistry: A Laboratory Control Sample, Method Blank, Matrix Spike and Matrix Duplicate were analyzed with the Sulfate preparation batch per the protocol for this analysis. A duplicate was analyzed as QC for the pH and Residual Chlorine analyses. There were no comments or non-conformances associated with the Wet Chemistry data.

I certify that this Data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.

Reviewed and approved:

Marti Ward
St. Louis Project Manager

SAMPLE SUMMARY

F0F010188

WO #	SAMPLE#	CLIENT SAMPLE ID	DATE	TIME
DE26C	001	B0YC00	05/31/00	08:45

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

METHODS SUMMARY

F0F010188

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
pH (Electrometric)	MCAWW 150.1	MCAWW 150.1
Residual Chlorine 330.3	MCAWW 330.3	
Sulfate	MCAWW 375.4	MCAWW 375.4
Volatile Organics by GC/MS	SW846 8260A	SW846 5030/8260

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

PSL20300 SEVERN TRENT LABORATORIES, INC Run Date: 6/01/00
Page 1 CLIENT ANALYSIS SUMMARY Time: 12:35:01
STL St. Louis User Id.: WILSONS

CLIENT: 127642 BECHTEL HANFORD, INC. QUOTE/SAR #: 33548
PROJECT MANAGER: MARTI WARD LAB ID: F-0F010188-001
PROJECT #: PERMIT MONITOR WORK ORDER: DE26C
REPORT TO: Bechtel Hanford, Inc. RECEIVING DATE: 5/31/00
P.O. NUMBER: MRC-SBB-A-19981 SAMPLING DATE: 5/31/00
SITE: B99-018 ANALYTICAL DUE DATE: 6/30/00N
AMOUNT REC"D: 3X40,125P,250P,LP REPORT DUE DATE: 7/17/00
STORAGE LOC: V5A,S11B PRIORITY: 29
LOT COMMENTS: Hanford EDD and Package Format required SAMPLING TIME: 8:45
MATRIX: WATER RECEIVING TIME: 11:10
SAMPLE ID: B0YC00
QC PACKAGE: Special Report - see checklist SDG# : W03161
SAMPLE COMMENTS:
RUN A DUPLICATE ON PH,SULFATE,CHLORINE.
Beginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Volatile Organics, GC/MS (8260A)	06	6/01/00	0/00/00	6/14/00
PURGE AND TRAP - 5 mL purge				
STL: SW-846 8260A				
(I-15-MZ-01) DE26C-1-01 Protocol: A QC Program: STANDARD TEST SET				
pH - Aqueous (150.1)	06	6/01/00	0/00/00	6/02/00
NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION				
(I-88-AJ-01) DE26C-1-04 Protocol: A QC Program: STANDARD TEST SET				
Chlorine, Residual (330.3)	06	6/01/00	0/00/00	6/01/00
NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION				
(I-88-RD-01) DE26C-1-07 Protocol: A QC Program: STANDARD TEST SET				
Sulfate 375.4)	06	6/01/00	0/00/00	6/28/00
NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION				
(I-88-UV-01) DE26C-1-0A Protocol: A QC Program: STANDARD TEST SET				

PSL20300 SEVERN TRENT LABORATORIES, INC Run Date: 6/01/00
Page 1 CLIENT ANALYSIS SUMMARY Time: 12:35:01
STL St. Louis User Id.: WILSONS

CLIENT: 127642 BECHTEL HANFORD, INC. QUOTE/SAR #: 33548
PROJECT MANAGER: MARTI WARD LAB ID: F-0F010188-001-D
PROJECT #: PERMIT MONITOR WORK ORDER: DE26C MSD
REPORT TO: Bechtel Hanford, Inc. RECEIVING DATE: 5/31/00
P.O. NUMBER: MRC-SBB-A-19981 SAMPLING DATE: 5/31/00
SITE: B99-018 ANALYTICAL DUE DATE: 6/30/00N
AMOUNT REC"D: 3X40,125P,250P,LP REPORT DUE DATE: 7/17/00
STORAGE LOC: V5A,S11B PRIORITY: 29
LOT COMMENTS: Hanford EDD and Package Format required SAMPLING TIME: 8:45
MATRIX: WATER RECEIVING TIME: 11:10
SAMPLE ID: B0YC00
QC PACKAGE: Special Report - see checklist SDG# : W03161
SAMPLE COMMENTS:
RUN A DUPLICATE ON PH,SULFATE,CHLORINE.
Beginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Volatile Organics, GC/MS (8260A)	06	6/01/00	0/00/00	6/14/00

PURGE AND TRAP - 5 mL purge
STL: SW-846 8260A
(I-15-MZ-01) DE26C-1-03 Protocol: A QC Program: STANDARD TEST SET

PSL20300 SEVERN TRENT LABORATORIES, INC Run Date: 6/01/00
Page 1 CLIENT ANALYSIS SUMMARY Time: 12:35:01
STL St. Louis User Id.: WILSONS

CLIENT: 127642 BECHTEL HANFORD, INC. QUOTE/SAR #: 33548
PROJECT MANAGER: MARTI WARD LAB ID: F-0F010188-001-S
PROJECT #: PERMIT MONITOR WORK ORDER: DE26C MS
REPORT TO: Bechtel Hanford, Inc. RECEIVING DATE: 5/31/00
P.O. NUMBER: MRC-SBB-A-19981 SAMPLING DATE: 5/31/00
SITE: B99-018 ANALYTICAL DUE DATE: 6/30/00N
AMOUNT REC'D: 3X40,125P,250P,LP REPORT DUE DATE: 7/17/00
STORAGE LOC: V5A,S11B PRIORITY: 29
LOT COMMENTS: Hanford EDD and Package Format required SAMPLING TIME: 8:45
MATRIX: WATER RECEIVING TIME: 11:10
SAMPLE ID: B0YC00
QC PACKAGE: Special Report - see checklist SDG# : W03161
SAMPLE COMMENTS:
RUN A DUPLICATE ON PH,SULFATE,CHLORINE.
Beginning Depth: .00 **Ending Depth:** .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Volatile Organics, GC/MS (8260A)	06	6/01/00	0/00/00	6/14/00
PURGE AND TRAP - 5 mL purge				
STL: SW-846 8260A				
(I-15-MZ-01) DE26C-1-02 Protocol: A QC Program: STANDARD TEST SET				
Sulfate 375.4)	06	6/01/00	0/00/00	6/28/00
NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION				
(I-88-UV-01) DE26C-1-0C Protocol: A QC Program: STANDARD TEST SET				

LOT #F0F01088

cor 713 2°

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		B99-018-40	Page 1 of 1
Collector: T Johansen/ M Bacchler	Company Contact: D Blankenship	Telephone No.: 373-5456	Project Coordinator: TRENT, SJ	Price Code: 7N; Air Quality: —	Data Turnaround: 45 Days
Project Designation: 183N Backwash Discharge Pond -- Permit Monitoring	Sampling Location: 183N		SAF No.: B99-018	
Ice Chest No.: ERC 99-070	Field Logbook No.: EL 1516	COA: 77BK27YA40	Method of Shipment: Fed-EX	
Shipped To: Quanterra Incorporated	Offsite Property No.: A00156		Bill of Lading/Air Bill No.: 42357953-6140	

POSSIBLE SAMPLE HAZARDS/REMARKS: NONE

Special Handling and/or Storage

W03161 SAMPLE ANALYSIS

Preservation	None	Cool 4C	None	HCl to pH <2 Cool 4C						
Type of Container	P	P	P	aGs*						
No. of Container(s)	1	1	1	3						
Volume	125mL	250mL	1000mL	40mL						
	pH - 150.1	Sulfate -- 375.4	Chlorine (Total residual) - 330.3	VOA - 8260A (TCL)						

Sample No.	Matrix *	Sample Date	Sample Time										
B0YC00	Water	5/31/00	0845	X	X	X	X						
				125P	250P	LP	3x4ml						

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By	Date/Time	Received By	Date/Time
[illegible]	5/31/00 1110	R. Thorsen	5/31/00 / 1110
R. Thorsen	5/31/00 1430	FEDEX	

SPECIAL INSTRUCTIONS: Sample media originated from a non-radiological area. No activity report required. Close SDG upon receipt of sample.

Sample originated in non RAD Controlled area. < 2000 DPM g. NOTA REQ.

Matrix *: S=Soil; SE=Sediment; SO=Solid; S=Sludge; W=Water; O=Oil; A=Air; DS=Drum Solids; DL=Drum Liquids; T=Tissue; WI=Wipe; L=Liquid; V=Vegetation; X=Other

LABORATORY SECTION	Received By	Title	Date/Time
	[illegible] STL	Sample Control	6/1/00 850
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (10/99)

STL St. Louis

6

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STL
Committed to *Your* Success

000713

Lot No.: F0F010188
W03161

Condition Upon Receipt Variance Report
St. Louis Laboratory

Client: Hanford, Bechtel
Date: 6/1/00 Time: 850
Quote No: 33548
Initiated by: JW
Shipper/No: 4235 7953-6140 Fedex
RFA/COC Numbers: 099-01854D

Condition/Variance (Check all that apply):

1. ☐ Sample received broken/leaking.
2. ☐ Sample received without proper preservative.
   - ☐ Cooler temperature not within 4°C ± 2°C
     Record temperature: _____
   - ☐ pH _____
   - ☐ other: _____
3. ☐ Sample received in improper container.
4. ☐ Sample received without proper paperwork. Explain: _____
5. ☐ Paperwork received without sample.
6. ☐ No sample ID on sample container.
7. ☐ Custody tape disturbed/broken/missing/not tamper evident type (circle all that apply).
8. ☐ Sample ID on container does not match sample ID on paperwork. Explain: _____
9. ☐ All coolers on airbill not received with shipment.
10. ☐ Sample volume insufficient for analysis
11. ☐ Other (explain below)

☒ **No variances were noted during sample receipt.**

☒ **Cooler Temperature Upon Receipt in °C:** 2°

Temperature Variance Does Not Affect the Following Analyses: _____

Notes: Large container 100% full

Corrective Action:

☐ Client's Name: _____ Informed verbally on: _____ By: _____

☐ Client's Name: _____ Informed in writing on: _____ By: _____

☐ Sample(s) processed "as is". _____

☐ Sample(s) on hold until: _____ If released, notify: _____

Sample Control Supervisor Review: (or designate) J Cuba Date: 6/1/00

Project Management Review: M Ward Date: 6/2/00

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE

SL-ADMIN-0004, Revised 03/06/00

BECHTEL HANFORD, INC.

Client Sample ID: B0YC00

GC/MS Volatiles

Lot-Sample #...: F0F010188-001 Work Order #...: DE26C101 Matrix.....: WATER
Date Sampled...: 05/31/00 Date Received..: 05/31/00
Prep Date.....: 06/05/00 Analysis Date..: 06/05/00
Prep Batch #...: 0158137
Dilution Factor: 1 Method.....: SW846 8260A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Chloromethane	ND	10	ug/L	1.6
Vinyl chloride	ND	10	ug/L	4.1
Bromomethane	ND	10	ug/L	2.0
Chloroethane	ND	10	ug/L	2.3
Acetone	ND	20	ug/L	6.9
1,1-Dichloroethene	ND	5.0	ug/L	2.2
Methylene chloride	ND	5.0	ug/L	1.8
Carbon disulfide	ND	5.0	ug/L	2.1
1,1-Dichloroethane	ND	5.0	ug/L	1.2
2-Butanone	ND	20	ug/L	6.8
1,2-Dichloroethene (total)	ND	5.0	ug/L	2.7
Chloroform	24	5.0	ug/L	1.5
1,1,1-Trichloroethane	ND	5.0	ug/L	1.3
Carbon tetrachloride	ND	5.0	ug/L	1.3
1,2-Dichloroethane	ND	5.0	ug/L	1.6
Benzene	ND	5.0	ug/L	1.9
Trichloroethene	ND	5.0	ug/L	1.8
1,2-Dichloropropane	ND	5.0	ug/L	1.7
Bromodichloromethane	ND	5.0	ug/L	2.7
4-Methyl-2-pentanone	ND	20	ug/L	3.5
cis-1,3-Dichloropropene	ND	5.0	ug/L	2.0
Toluene	ND	5.0	ug/L	1.6
trans-1,3-Dichloropropene	ND	5.0	ug/L	2.5
1,1,2-Trichloroethane	ND	5.0	ug/L	3.6
2-Hexanone	ND	20	ug/L	4.6
Tetrachloroethene	ND	5.0	ug/L	2.7
Dibromochloromethane	ND	5.0	ug/L	3.2
Chlorobenzene	ND	5.0	ug/L	2.8
Ethylbenzene	ND	5.0	ug/L	2.4
Xylenes (total)	ND	10	ug/L	6.6
Styrene	ND	5.0	ug/L	3.0
Bromoform	ND	5.0	ug/L	3.1
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	3.4

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	81	(71 - 118)
Toluene-d8	96	(78 - 124)
Dibromofluoromethane	97	(77 - 138)

BECHTEL HANFORD, INC.

B0YC00

GC/MS Volatiles

Lot-Sample #: F0F010188-001 Work Order #: DE26C101 Matrix: WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		22	M	2.515	ug/L

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: F0F010188 **Work Order #...:** DE26C102-MS **Matrix.....:** WATER
MS Lot-Sample #: F0F010188-001 DE26C103-MSD
Date Sampled...: 05/31/00 **Date Received..:** 05/31/00
Prep Date.....: 06/05/00 **Analysis Date..:** 06/05/00
Prep Batch #...: 0158137
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	ND	50.0	47.2	ug/L	94		SW846 8260A
	ND	50.0	49.3	ug/L	99	4.2	SW846 8260A
Benzene	ND	50.0	47.0	ug/L	94		SW846 8260A
	ND	50.0	47.6	ug/L	95	1.2	SW846 8260A
Trichloroethene	ND	50.0	40.2	ug/L	80		SW846 8260A
	ND	50.0	41.6	ug/L	83	3.5	SW846 8260A
Toluene	ND	50.0	46.4	ug/L	93		SW846 8260A
	ND	50.0	47.1	ug/L	94	1.4	SW846 8260A
Chlorobenzene	ND	50.0	46.7	ug/L	93		SW846 8260A
	ND	50.0	48.1	ug/L	96	3.1	SW846 8260A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	85	(71 - 118)
	84	(71 - 118)
Toluene-d8	98	(78 - 124)
	99	(78 - 124)
Dibromofluoromethane	99	(77 - 138)
	99	(77 - 138)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: F0F010188 Work Order #...: DE7N2101 Matrix.....: WATER
MB Lot-Sample #: F0F060000-137

Prep Date.....: 06/05/00
Analysis Date..: 06/05/00 Prep Batch #...: 0158137
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Chloromethane	ND	10	ug/L	SW846 8260A
Vinyl chloride	ND	10	ug/L	SW846 8260A
Bromomethane	ND	10	ug/L	SW846 8260A
Chloroethane	ND	10	ug/L	SW846 8260A
Acetone	ND	20	ug/L	SW846 8260A
1,1-Dichloroethene	ND	5.0	ug/L	SW846 8260A
Methylene chloride	ND	5.0	ug/L	SW846 8260A
Carbon disulfide	ND	5.0	ug/L	SW846 8260A
1,1-Dichloroethane	ND	5.0	ug/L	SW846 8260A
2-Butanone	ND	20	ug/L	SW846 8260A
1,2-Dichloroethene (total)	ND	5.0	ug/L	SW846 8260A
Chloroform	ND	5.0	ug/L	SW846 8260A
1,1,1-Trichloroethane	ND	5.0	ug/L	SW846 8260A
Carbon tetrachloride	ND	5.0	ug/L	SW846 8260A
1,2-Dichloroethane	ND	5.0	ug/L	SW846 8260A
Benzene	ND	5.0	ug/L	SW846 8260A
Trichloroethene	ND	5.0	ug/L	SW846 8260A
1,2-Dichloropropane	ND	5.0	ug/L	SW846 8260A
Bromodichloromethane	ND	5.0	ug/L	SW846 8260A
4-Methyl-2-pentanone	ND	20	ug/L	SW846 8260A
cis-1,3-Dichloropropene	ND	5.0	ug/L	SW846 8260A
Toluene	ND	5.0	ug/L	SW846 8260A
trans-1,3-Dichloropropene	ND	5.0	ug/L	SW846 8260A
1,1,2-Trichloroethane	ND	5.0	ug/L	SW846 8260A
2-Hexanone	ND	20	ug/L	SW846 8260A
Tetrachloroethene	ND	5.0	ug/L	SW846 8260A
Dibromochloromethane	ND	5.0	ug/L	SW846 8260A
Chlorobenzene	ND	5.0	ug/L	SW846 8260A
Ethylbenzene	ND	5.0	ug/L	SW846 8260A
Xylenes (total)	ND	10	ug/L	SW846 8260A
Styrene	ND	5.0	ug/L	SW846 8260A
Bromoform	ND	5.0	ug/L	SW846 8260A
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	SW846 8260A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	84	(71 - 118)
Toluene-d8	95	(78 - 124)
Dibromofluoromethane	97	(77 - 138)

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: F0F010188 Work Order #...: DE7N2101 Matrix.....: WATER

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

BECHTEL HANFORD, INC.

Method Blank Report

GC/MS Volatiles

Lot-Sample #: F0F060000-137 B **Work Order #:** DE7N2101 **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/L

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: F0F010188 **Work Order #...:** DE7N2102 **Matrix.....:** WATER
LCS Lot-Sample#: F0F060000-137
Prep Date.....: 06/05/00 **Analysis Date..:** 06/05/00
Prep Batch #...: 0158137
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
1,1-Dichloroethene	50.0	48.4	ug/L	97	SW846 8260A
Benzene	50.0	47.7	ug/L	95	SW846 8260A
Trichloroethene	50.0	40.5	ug/L	81	SW846 8260A
Toluene	50.0	47.8	ug/L	96	SW846 8260A
Chlorobenzene	50.0	48.0	ug/L	96	SW846 8260A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	85	(71 - 118)
Toluene-d8	99	(78 - 124)
Dibromofluoromethane	98	(77 - 138)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

BECHTEL HANFORD, INC.

Client Sample ID: B0YC00

General Chemistry

Lot-Sample #...: F0F010188-001 Work Order #...: DE26C Matrix.....: WATER
Date Sampled...: 05/31/00 Date Received..: 05/31/00

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH (liquid)	7.8		No Units	MCAWW 150.1	06/05/00	0157427
	Dilution Factor: 1			MDL.....: 0.010		
Sulfate	10.7	5.0	mg/L	MCAWW 375.4	06/28/00	0183136
	Dilution Factor: 1			MDL.....: 0.90		
Total Residual Chlorine	ND	0.10	mg/L	MCAWW 330.3	06/09/00	0161385
	Dilution Factor: 1			MDL.....: 0.089		

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F0F010188 **Work Order #...:** DE26C-SMP DE26C-DUP **Matrix.....:** WATER

Date Sampled...: 05/31/00 **Date Received..:** 05/31/00

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH (liquid)						SD Lot-Sample #: F0F010188-001		
	7.8	7.8	No Units	0.64	(0-20)	MCAWW 150.1	06/05/00	0157427
		Dilution Factor: 1						
Total Residual Chlorine						SD Lot-Sample #: F0F010188-001		
	ND	ND	mg/L	0	(0-20)	MCAWW 330.3	06/09/00	0161385
		Dilution Factor: 1						
Sulfate						SD Lot-Sample #: F0F010188-001		
	10.7	10.8	mg/L	1.5	(0-20)	MCAWW 375.4	06/28/00	0183136
		Dilution Factor: 1						

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: F0F010188 **Matrix.....:** WATER
Date Sampled...: 05/31/00 **Date Received..:** 05/31/00

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Sulfate			Work Order #...: DE26C10C			MS Lot-Sample #: F0F010188-001		
	10.7	25.0	34.4	mg/L	95	MCAWW 375.4	06/28/00	0183136
			Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: F0F010188 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH (liquid)		Work Order #: DE8E5101		MB Lot-Sample #:	F0F050000-427	
	6.7	0.10	No Units	MCAWW 150.1	06/05/00	0157427
		Dilution Factor: 1				
Sulfate		Work Order #: DFM8X101		MB Lot-Sample #:	F0G010000-136	
	ND	5.0	mg/L	MCAWW 375.4	06/28/00	0183136
		Dilution Factor: 1				
Total Residual Chlorine		Work Order #: DEGND101		MB Lot-Sample #:	F0F090000-385	
	ND	0.10	mg/L	MCAWW 330.3	06/09/00	0161385
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: F0F010188 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Sulfate			Work Order #: DFM8X102		LCS Lot-Sample#: F0G010000-136		
	30.0	29.2	mg/L	98	MCAWW 375.4	06/28/00	0183136
			Dilution Factor: 1				
Total Residual Chlorine			Work Order #: DEGND102		LCS Lot-Sample#: F0F090000-385		
	7.13	6.91	mg/L	97	MCAWW 330.3	06/09/00	0161385
			Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.